## Claims

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1. A method of associating look-up table addresses with MAC addresses, the method including for successive MAC addresses  $A_0$ :

using  $A_0$  to generate y+1 look-up table addresses  $H_0$ ,  $H_1$ ,  $H_2$ , ...,  $H_y$ , where y is an integer greater than or equal to one; and

according to at least one criterion associating the address  $A_0$  with a selected one of the addresses  $H_0, H_1, H_2, ..., H_y$ 

- 2. A method according to claim 1 wherein the criterion is that  $A_0$  is associated with  $H_n$  where n is the smallest integer in the range 0 to y such that there is presently no MAC address associated with the address  $H_n$
- 3. A method according to claim 1 wherein the criterion is that  $A_0$  is associated with  $H_n$  where n is the smallest integer in the range 0 to y such that the number of MAC addresses associated with the address  $H_n$  is less than a predetermined integer.
- 4. A method according to claim 1, claim 2 or claim 3 wherein the addresses H<sub>1</sub> to H<sub>y</sub> are generated successively upon it being found that the preceding H<sub>n</sub> does not meet a criterion.
  - 5. A method according to claim 4 wherein the value of y is predetermined, whereby the maximum number of addresses  $H_0$ ,  $H_1$ ,  $H_2$ , ...,  $H_y$  which are generated is no more than a predetermined number, even if none of these addresses meets the criterion.
  - 6. A method according to any preceding claim wherein each of the addresses  $H_1$ ,  $H_2$ , ...,  $H_y$  is obtained from the address  $A_0$  by first forming a respective string  $A_n$  having the same number of bits as  $A_0$ , and then applying the algorithm by which  $H_0$  is obtained from  $A_0$ .
  - 7. A method according to claim 6 wherein each  $A_n$  is obtained by modulating a string  $S_n$  obtained by a selection from  $A_0$  with a respective set of Walsh codes.

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8. A switch including a memory for defining a look-up table having a plurality of addresses and a processor for associating MAC addresses with addresses of the look-up table,

the processor being arranged to use each MAC address A<sub>0</sub> to generate y+1 look-up table addresses H<sub>0</sub>, H<sub>1</sub>, H<sub>2</sub>, ..., H<sub>y</sub> for y an integer greater than or equal to one, and according to at least one criterion to associate the address A<sub>0</sub> with a selected one of the addresses H<sub>0</sub>, H<sub>1</sub>, H<sub>2</sub>, ..., H<sub>y</sub>